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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,907	12/12/2000	Yasuhito Tanaka	P64537US1	6075
136	7590	05/28/2004	EXAMINER	
JACOBSON HOLMAN PLLC 400 SEVENTH STREET N.W. SUITE 600 WASHINGTON, DC 20004			HO, HA DINH	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/733,907

Applicant(s)

TANAKA, YASUHIITO

Examiner

Ha D. Ho

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5,6,8,10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5,6,8 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☒ Certified copies of the priority documents have been received in Application No. 09/102,557.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/31/04 has been entered.
2. This Office Action is responsive to Applicant's Amendment filed on 03/31/04. Claims 5 and 10 have been amended, and claims 7 and 13 have been canceled accordingly. Claims 5, 6, 8, 10 and 11 are currently pending.
3. Claim 11 was withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper filed on 7/24/02.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 5, 6, 8 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 5 and 10 recite the limitation "the inner ring" in the last line. There is insufficient antecedent basis for this limitation in the claim. It is suggested to insert --body-- after "ring".

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 6, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zettner et al (US 5,617,937) in view of Deppert et al. (US 5,330,393) and Welter et al. (US 5,407,045).

Regarding claims 5 and 10, Zettner et al'937 teach a pulley unit (see Fig. 1) having a free end (i.e., the left side) and a base end (i.e., the right side), comprising:

inner (2) and outer (1) concentric ring bodies that define an annular space there between;  
a one-way clutch including a cam surface (13), a holder (4) defining a pocket (17), a roller (3), and an elastic member (18);

first and second roller bearings (6, 6) provided on both sides of the one-way clutch, one on the free-end side of the pulley unit (i.e., the left side) and another on the base end side of the pulley unit (i.e., the right side), wherein the first roller bearing is in form of a cylinder and in rolling contact with the outer surface of the inner ring body (2).

Zettner et al'937 do not show the second bearing being a ball bearing.

Using of a combination of a needle bearing and a ball bearing in a pulley unit is old and well known in the art. For example, Deppert et al'393 show a pulley unit (see Fig. 2) having inner (5) and outer (9) concentric ring bodies, a needle bearing (15) provided on the left side of the pulley (i.e., free-end side), and a ball bearing (11) provided on the right side of the pulley (i.e., base end side).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a combination of a needle bearing and a ball bearing instead of two needle bearings on the pulley unit of Zettner et al'937 in view of Deppert et al'393, since using of a combination of a needle bearing and a ball bearing in a pulley unit is old and well known in the art. Further, replacing a needle bearing by a ball bearing is to prevent the inner ring body from moving axially.

Zettner et al'937 do not show axial movement of the holder (4) of the one-way clutch being restricted by the inner ring (2).

Welter et al'045 show a locking element freewheel assembly (see Fig. 4) comprising inner and outer ring bodies (1, 2), a holder (6) for holding the rollers (5), wherein the inner ring body (2) is provided an annular groove (13) so that the axial movement of the holder (6) is restricted.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Zettner et al'937 such that axial movement of the holder (4) of the one-way clutch is restricted by the inner ring (2) as taught by Welter et al'045 in order to provide the desired effects of a uniform contact loading between locking element and locking surface (col. 2, lines 13-21).

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Regarding claim 6, wherein the left roller bearing is in rolling contact with the inner surface of the outer ring body.

Regarding claim 8, wherein the roller (3) is cylindrically shaped.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 5 and 10 have been considered but are moot in view of the new ground(s) of rejection (see paragraph 7 above).

### ***Cited Prior Art***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Le-Calve'094, Bowers et al'563, and Shoji et al'303 which each shows a clutch including a locking-element retainer being restricted axially by an inner ring body.

### ***Communication***

10. Submission of your response by facsimile transmission is encouraged. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see M.P.E.P. 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check. Responses submitted by facsimile transmission should include a Certificate of Transmission (M.P.E.P. 512). The following is an example of the format the certification might take:

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I hereby certify that this correspondence is being facsimile transmitted to  
the Patent and Trademark Office on \_\_\_\_\_

(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and M.P.E.P. 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Examiner Ho whose telephone number is (703) 305-0738. The examiner can normally be reached on Monday-Friday from 7:30 A.M. to 5:00 P.M. Eastern Standard Time. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Mr. Charles Marmor, can be reached at (703) 308-0830. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168.

HDH  
(703) 305-0738  
May 20, 2004

*Ho Ho*  
**HAHO**  
**PRIMARY EXAMINER**  
Art Unit 3681 5/20/04